

Distance Education in Asia and the Pacific:

CHINA, PEOPLE'S REPUBLIC

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THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Distance education in China has two distinctly different strands, one is the audio-visual teaching programmes offered by Radio and TV Universities, the other is correspondence courses provided by dual mode institutions.

Correspondence education rapidly developed in the 1950's. The Chinese government and Central Committee of CPC attach importance to it. The State Education Commission has issued a series of documents on dual mode institutions offering correspondence education. As of 1990, there were 443 institutions offering correspondence education, consisting of about 286 specialties; 147 in engineering, 38 in agriculture and forestry, 28 in finance and economics, 27 in teacher training, 18 in liberal arts, 16 in sciences, and 12 in other subjects. These specialties are at two different levels: undergraduate specialties where the period of schooling is five years; and junior college specialties where the period of schooling in three to three and a half years.

From 1980 to 1990, there were 660,000 correspondence graduates. In 1990, the number of registered correspondence students was 547,000 (147,000 students of undergraduate courses, 400,000 students of junior college courses). The target students mainly are in-service adults with secondary education certificates. They are admitted by passing the national entrance examination.

Corresponding materials include text books, guide books, and reference books. Correspondence students receive face-to-face tutoring in study centers located in local dual mode institutions.

In this paper, the Institute of Correspondence Education and Further Education of Tongji University, and East China Normal University Adult Education College are described as representative of distance education institutions in China.

China's radio and television universities (TVUs) were initiated in the early 1960's, closed down for ten years, then resumed in the 1970's. China's TVU system was formed at the beginning of the 1980's. It plays an important role in the Chinese higher educational system by providing a large number of people with access to higher education through distance learning. The academic standards of TVUs have been positively acknowledged by conventional institutions. As of 1990, the TVU system had enrolled 1.83 million students and 1.25 million students had graduated.

The TVU system has offered 294 specialties at the junior college level. It has helped to increase the proportion of junior college students over age twenty-five, and it has helped to improve the curricular arrangement in China's higher education by enrolling thousands of students majoring in the humanities and economics and management. The TVU system is cost effective and trains more people at lower cost in a shorter period of time than on-campus institutions.

The strategy of developing China's TVUs is to increase educational reform, to perfect

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the system, to improve teaching quality, to be more cost effective, to develop junior college courses in a stable way and at the same time to develop continuing education at the postgraduate level and vocational education at the primary and secondary levels. The TVU system must adapt and improve according to the needs of social economic development.

HISTORY AND BACKGROUND

At the beginning of the founding of the People's Republic of China, the government saw institutions offering correspondence education as an important method to raise official's and worker's theoretical, cultural and vocational level, and turn out the necessary specialized personnel. In the second half of 1951, the Central Committee of CPC and the Ministry of Education approved for the People's University to set up a correspondence education department. On February 7, 1953 the Correspondence Education Department of the People's University offered ten specialties in finance and economics, and enrolled 2,700 students in junior college courses. In 1954, The Ministry of Education pointed out that correspondence education was part of the regular education system in the circular entitled Report of Inspecting the Correspondence Education of Northeast Normal University. This circular established the status of correspondence education in all educational institutions. Until 1955, there were seven institutions which offered correspondence courses in Finance and Economics, as well as teacher training. The number of registered correspondence students was 4,390. In February 1955, there were 1,600 first-batch correspondence graduates of junior college courses.

In 1956, Xiamen University set up an overseas correspondence department mainly for overseas Chinese. From 1956 to 1957, the Ministry of College-Level Education and Ministry of Education issued a series of documents stipulating the rules and regulations surrounding the principle, task, aims, specialties offered, term of instruction, target students, entrance examination, teaching requests, period of schooling, and management system for correspondence education. These documents laid the groundwork for the development and management of correspondence education in institutions.

In 1957, there were fifty-eight institutions offering correspondence courses in Engineering Agriculture, Forestry, Teacher Training, Liberal Arts, Sciences, Finance and Economics, as well as Political Law. The number of registered correspondence students was 35,000.

In 1961, a draft of Temporary Working Rules and Regulations of Universities and Colleges affiliated to Ministry of Education by the Central Committee of CPC, stipulated that institutions must run correspondence education actively. In 1962, there were 122 institutions running correspondence education and 189,000 correspondence students on the roll. During that time, some institutions enrolled farmers who had secondary schooling certificates and some young school leavers in the city.

In 1963, the Ministry of Education established a trial correspondence institute, Beijing Correspondence Institute, to explore correspondence teaching modes. In 1966, it was closed down.

In January 1963, The Notice Concerning to Strengthen Correspondence Educational Working of Full-Time Universities and Colleges and Secondary Specialized Schools, and Evening University Educational Working, issued by the Ministry of Education, stated that

night school were gaining importance. They must look to both urban and rural areas, not only to enroll the workers and staff members of the enterprises, officials and teachers, but also the young school leavers in the cities. This, every department and every region was asked to develop correspondence education and night school both actively and steadily in accordance with the policy Readjustment, Consolidation, Filling out and Raising Standards, and the rules Overall Planning, Overall Arrangement, Division of Work as well as Coordination of Effort, Strengthen Leadership, and in accordance with needs and possibilities.

At the same time, the Ministry of Education made stipulations for a correspondence education plan for institutions, which included examination and approval procedures, target students, educational aims, course design, teaching material construction authorized strength, funds and expenditure, establishment of the correspondence tutorial centers, as well as strengthening the leadership and management.

In 1965, the total number of institutions offering correspondence education was 123. About 189,000 correspondence students were on the roll. There were 74,000 correspondence freshmen and 16,000 correspondence graduates. Until 1965, there had been more than ten batches of correspondence graduates, totaling 80,000.

Because of the Cultural Revolution, correspondence education was not offered from 1966 to 1973. After 1973, some institutions offered a few correspondence courses for teachers and young school leavers who went to the rural areas.

In order to promote resuming and developing correspondence education, in April 1980, the Ministry of Education held a forum for institutions which ran correspondence education and evening university education. In this forum, the importance and urgency of conventional institutions running correspondence education was made clear. After that forum, the Ministry of Education submitted *The Suggestion on Developing Vigorously Correspondence Education and Evening University Education in Conventional Institutions* to the State Council. In September 1980, the State Council authorized the dispatch of this document to each provincial, autonomous, regional, municipal government and each ministry for implementation.

The State Council pointed out that in addition to organizing full-time university education, institutions should actively run correspondence education and evening university education in accordance with their own conditions. Practice has proven that conventional institutions running correspondence education and evening university is a cost effective and important way to turn out specialized personnel. It is also an important measure to raise the whole nation's cultural and scientific level. It should be the components of higher education undertakings, therefore institutions should tap the potentialities of teachers and equipment, and run correspondence education and evening university actively.

Until 1981, there were 177 institutions offering correspondence courses, forming 102 specialties with 189,000 registered students.

In April and December 1981, the Ministry of Education held two conferences on correspondence teaching in technical colleges to discuss and stipulate teaching plans of undergraduate correspondence courses and the syllabus of foundational courses as well as technical basic courses. They proposed the revision of twenty six correspondence teaching syllabuses of twenty courses including English, Advanced Mathematics, Ordinary Physics, Ordinary Chemistry, Inorganic Chemistry, Theoretical Mechanics, Mechanics of Material, Mechanical Theory, Machine Components, Electrical Engineering, and Electronic Technical

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Basis.

From 1979 to 1985, the Ministry of Education issued a series of documents, stipulating the examination and approval program of correspondence education for institutions. They covered the management, developing scales, teaching plans, compiling and publishing correspondence teaching materials, the evaluation of professional titles for full-time faculty, the enrollment process, tuition fees, and conferring diplomas. In March 1983, the Ministry of Education issued *A Few Ideas on Vouchsafing Universities and Colleges the Right to Confer Bachelor Degrees on an Experimental Basis* to the Graduates of Regular Correspondence and Evening University Courses. This was an important event in the history of Chinese adult education. On June 18, 1985, the State Education Commission was established and the Ministry of Education was disbanded. In 1986, the State Education Commission decided to conduct unified enrollment and common entrance examinations to adult degree education.

LEGAL STATUS

In June 1986, the State Education Commission issued *Provisional Regulations of Correspondence Education of Conventional Institutions*. It was the first comprehensive legal document pertaining to correspondence educational history of China and it has promoted correspondence education by formalizing, standardizing, and systematizing it.

Until 1986, there were 371 institutions offering correspondence education, comprising 35% of the total number of educational institutions, offering 286 specialties: 147 in engineering, thirty eight in agriculture and forestry, twenty eight in finance and economics, twenty seven in teacher training, eighteen in liberal arts, sixteen in sciences, and twelve in other subjects, being 35% of the total number of specialties offered by regular full-time higher education. There were 415,000 registered correspondence students including 139,000 correspondence undergraduates and 276,000 correspondence students of junior college courses. In November 1988, the Committee of Academic Degree of the State Council issued *Provisional Regulations on Conferring Bachelor Degree to Adult Graduates of Undergraduate Correspondence Courses*.

In 1990, there were 443 conventional institutions running correspondence education, or 41% of the total number of educational institutions (1075). The number of registered correspondence students was 547,000 (147,000 correspondence students of undergraduate courses, 400,000 correspondence students of junior college courses). The number of registered non-distance institutions undergraduates amounted to 2,067,000. The ratio of correspondence students to full-time students was 1 to 3.8.

Among these registered correspondence students, there were 194,000 students of teacher training courses, 122,000 students of engineering courses, and 119,000 students of finance and economics courses. The enrollment number amounted to 156,000, with 123,000 graduates. From 1980 to 1990, there were 660,000 correspondence graduates.

Recently, some institutions set up correspondence education research divisions, while some universities united to establish organizations which researched distance learning in order to sum up the experiences, improve the quality, and promote the development of correspondence education. They have published theoretical research periodicals to communicate the information, exchange their experiences, and hold theoretical discussions.

The theoretical research promotes the development of practice in correspondence education.

OVERVIEW OF CURRENT SITUATION

The State Education Commission set up a special department which is responsible for correspondence education. The educational administrative Departments of Ministries and Commissions came under the State Council. Provinces, autonomous regions, municipalities and special cities set up their own management organizations. These organizations are responsible for the overall planning, methods of student evaluation and examination, daily operations of correspondence education, evaluation of teaching quality, and management.

Institutions organize correspondence education in accordance with their own environment. They are responsible for teaching and administrative management. A number of correspondence study centers, which are responsible for tuition and administrative management, have been established.

Institutions that offer correspondence education must undergo the procedures of application, examination and approval. They must meet the following conditions. First, the number of registered full-time students must be more than 2,000. The offered specialties must have at least two batches of full-time graduates. There must be the appropriate management organization, with academic and administrative management staff. The management rules have been stipulated. There must be qualified full and part time teachers suitable for running correspondence education. Finally, there must be suitable correspondence teaching materials, self-learning guide books and reference materials.

If institutions want to run correspondence education, they must apply to the proper authorities, namely the education administrative departments of Ministries, provinces, autonomous regions, municipalities, or special cities. The universities and colleges affiliated with the state Education Commission must get their approval to run correspondence education. Institutions offering correspondence education can decide to increase specialties which have been offered for full-time students, but they must report it to the department responsible for the university or college.

When applying to offer new specialties which are not provided for full-time students, these new specialties must be in urgent need and the universities and colleges have the capacity to meet those needs. Correspondence courses must follow the established teaching plans and outlines of regular courses. Strict examination rules and regulations must be drawn up to guarantee that the quality of the correspondence courses will be equal to that of the on-campus courses. Correspondence teaching activities include self-learning, face-to-face instruction, tuition, assignments, laboratory courses, field-work, testing, course design, a graduation project and oral defense of the graduation thesis or examination. The time spent for instruction, laboratory courses and field-work should be 30% of the general teaching hours of the equivalent regular courses. Correspondence teaching materials include textbook, guide book, and reference book. Recently a few audio-visual teaching materials have come to be used.

The ratio of the number of the staff to correspondence students should be between 1:20 and 1:50. The correspondence teachers' posts should be stable so as to accumulate teaching experience to improve teaching quality. The target students of correspondence courses are in-service adults with secondary education certificates; fresh secondary school

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graduates; and young school leavers. They are admitted by passing a national entrance examination. Some continuing education programmes enroll in-service adults with higher education diplomas. In-service correspondence students are allowed to request leave to take part in the teaching activities according to the teaching plans. Their salary is paid by their units. When they participate in intensive teaching activities, their transportation fees and accommodation fees are paid by their units. The correspondence graduates' status is the same as the full-time graduates'. Correspondence education funds come from government grants, the tuition fees paid by the correspondence students and their units.

In China, there are many institutions offering correspondence education. It is impossible to describe them all. In this paper, the Institute of Correspondence Education and Further Education of Tongji University and East China Normal University Adult Education College are described as representative.

The Institute of Correspondence Education and Further Education of Tongji University

In 1956 Tongji University began to run correspondence higher education. In 1984 the Correspondence Education Institute was officially established and in 1989 changed its name to The Institute of Correspondence Education and Further Education of Tongji University.

Within the institute there is a President and Vice-President who are responsible for the overall work. The Administrative Secretary Section is in charge of recruiting new students, financial affairs, and administrative secretary work. The routine work is conducted by the General Office of the institute, comprised of five sections: The Correspondence Educational Administration Section, in charge of correspondence teaching management and the correspondence study centers; The Evening University and Further Education Section, in charge of the teaching management of the evening university and various post-college education; The Post Training Section, in charge of various post-training, the special professional secondary school and the teaching management of the evening school; and The Teaching Material and Teaching Research Section, in charge of the supply of audio-visual materials, organizing and carrying out adult education research work, publishing the magazines and newspaper of Tongji Adult Education and Information Exchange.

The magazine Tongji Correspondence Teaching and the newspaper Students' Friend contain various documents about correspondence education and analysis of various problems in teaching, as well as abundant feedback information from the students. The reports about students' studies and work are published to encourage them to study hard.

There are eight correspondence teaching sections: Mathematics, Physics, Foreign Language, Drafting, Electrotechnics, Mechanics, Structure, and Architecture. There are specialty directors in the concerned departments of the university so as to strengthen the contacts with the various specialties of the university and get advice in teaching activities. Generally the specialty directors of the institute are the Vice Directors of the concerned department of the university.

At present the institute offers both degree courses and non-degree courses. Undergraduate degrees, which take five and one-half years to complete, can be obtained in the seven specialties of Industrial and Civil Building Engineering, Water Supply and Sewerage Engineering, Heating Ventilation and Air-conditioning, Road Engineering, Engineering Surveying, Industrial Electrical Automation, and Environmental Engineering.

The junior college course (three and one-half years) offers the two specialties of Industrial and Civil Building Engineering, and City and Town Construction. Second degree courses offer Industrial Management, and Building Engineering Management. Non-degree courses include individual courses and combination courses for professional certificates, post training and continuing education after college training.

The target students of the institute are in-service adults, comprising 80-90% of the correspondence students, and fresh secondary school graduates. Generally the adult students have earned the diploma of a secondary specialized school or secondary technical school before they enroll. They must also pass the entrance examination. The students must be selected from the staff and workers of units. In the selection of students and in their employment after graduation, the principle of learning in conjunction with work is strictly maintained. That is, the specialty a student chooses must be related to the kind of job he or she is doing in his or her unit. If a unit hopes to recommend a worker to undertake a specialty which is irrelevant to the job, it must ensure that the student will be assigned to a new job relevant to what he or she learns after graduation, otherwise the person recommended will not be admitted. Their learning activities must be carried out in their spare-time and they must continue to work at their units after graduating. The students' learning activities do not run counter to their work. Instead, they can help to solve problems in work, enhance working effectiveness, and promote the development of production.

The contract signed stipulates that the relevant unit must create favorable conditions for the students to engage in their studies. For example, the units must help to assure that five evenings and one working day a week will be spent in correspondence study. Every term, the units must allow their correspondence students to take leave twice (each lasts two to four weeks) to go to Tongji University, or study centers, to take part in teaching activities, such as lesson review, question/answer sessions, experiments, and examinations. Students continue to receive full wages while on leave. The units must provide travelling and accommodation money for these activities. Specific personnel within the units are assigned to administrate and supervise the learning of the students.

It has been defined in the Regulation of Grade Given To Correspondence Students in Tongji University that students must submit two-thirds of the assignments and periodical test exercises to the Correspondence Institute by the end of the term before being allowed to take the final examination for the course. It has also defined that teachers should record the grades of assigned experiments, projects, and exercises. Students are considered to have finished the curriculum only when grades meet the requirements, and earn the diploma only after completing the curriculum of each term and passing the oral defense. The students choose between two formal examination papers, but may be excused from the exam if they submit an independent project judged to be of sufficiently high quality.

Every year 900 students are admitted. As of 1990, the total enrollment figure was 9,000, of which 4,300 students in fourteen batches had graduated. About 80% of those enrolled graduated, and 75% of graduates were awarded the bachelor degree. In 1990, 3600 students were on the roll.

Students under the age of twenty-four comprise 90%, with 10% over age twenty-five. Ten per cent of students are female. The correspondence students come from eight provinces (Jiangsu, Anhui, Shandong, Jiangxi, Fujian, Zhejiang, Liaoning, Jilin) and one city (Shanghai). In order to make it convenient for students to attend classes, the institute set up eleven correspondence study centers in relevant local institutions.

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The main tasks of the institute, in conjunction with the study centers, are the development of plans and programmes, the compilation of teaching materials, the organizing of activities, and managing enrollment and examinations, as well as arranging for the marking of student assignments and the training of teachers who work in various correspondence study centers. All of these tasks are specifically stipulated in the Attentions for Routine Work of Staff Member of Correspondence Institute of Tongji University and Provisional Regulation of Correspondence Station Supervised by Tongji University.

The faculty compile teaching materials suitable for student learning. Some teaching materials are adopted from the parent university, and they are supplemented with instruction books compiled by the faculty. There are three principles observed in writing the textbooks. The book should take care to integrate theory with practice on the basis of ensuring the systematization and completeness of the basic theory of the curriculum. The book should spare no space to clearly explain the key and difficult points. The book should be enlightening, be easily comprehensible for self-learning, and each chapter should include instructions of study methods, as well as suitable examples, exercises, and self-administered tests.

There are eighty full-time teachers and eighty part-time teachers and fifty administrative staff. The ratio of correspondence teachers to students is about 1:25. Some teaching research groups have been formed. A Professor or an Associate Professor is appointed to be responsible for each teaching research group. Every study center has a group of part-time teachers. Regulation for Routine Work of Correspondence Teachers in Tongji University and Suggestions of Trying to Carry Out the Regulation of Amount of Work Required for Correspondence Teachers in Tongji University have been stipulated. These documents detail the responsibilities of the teachers and define the requirements of quality and quantity of the teaching work as well as teaching methodology research.

Since its founding, the Correspondence Institute of Tongji University has won great fame. According to a survey of 261 engineering graduates, quite a number of them oversee important projects at the state level, such as the Baoshan Iron and Steel Complex, the Shanghai Petrochemical Complex, and others.

Generally, State Education Commission grants (equalling) US \$68,000, and Shanghai Higher Education Bureau grants (equalling) US \$20,000 are given to the Institute every year. The institute collects tuition fees equalling \$240,000 to \$260,000 paid by the students' units every year (equalling \$70 for each Shanghai correspondence student's tuition fee and \$90 for each out-of-Shanghai student's tuition every year). The total number of funds is about equal to \$360,000. Compared to on-campus institutions, distance education is cost-effective. It requires only 25-30% of the cost required for one full-time student in on-campus institutions.

The institute has set up a good relationship with the German distance education Hagen University. Visits and information are exchanged between the two institutes.

With the development of economic construction, the Institute of Correspondence Education and Further Education of Tongji University will further improve teaching quality, arrange teaching at multiple educational levels, establish the kind of management system which combines structure with flexibility, and develop and progress in a steady way.

East China Normal University Adult Education College

Correspondence education of the East China Normal University started in 1956. In accordance with arrangements made by the Ministry of College Level Education, a correspondence education department was set up on the campus, offering seven specialties, Chinese Language and Literature, History, Mathematics, Physics, Chemistry, Biology and Geography. The main purpose was training In-service secondary school teachers. The correspondence students were scattered in Jiangsu and Zhejiang provinces, as well as Shanghai. Some study centers were established in these places. In 1959, the correspondence education department began to enroll students from Anhui, Shandong, and Fujian provinces besides Jiangsu and Zhejiang provinces and Shanghai. In 1966, because of The Cultural Revolution, the correspondence education department was closed. In 1978, the correspondence education department was restored and rapidly developed on the basis of the experience gained in the 1950's. In December 1986, East China Normal University Adult Education College was established by the State Education Commission.

The college is composed of a President's Office, an Administrative Division, the Correspondence Education Department, Evening University Education Department, Self-Instruction Examination Division, a Training Division, Divisions of Chinese Language, Foreign Language, Physics, Mathematics, and Adult Higher Education, the Research in Adult Higher Education Editorial Department, Electrical Audio-Visual Education Division, a Computer Laboratory, and an Information Room. The Correspondence Education Department is responsible for running correspondence education and offering vocational training courses, post-university continuing education courses and thirteen specialties, some of which lead to a university graduation diploma and some lead to a junior college graduation diploma.

The five-year undergraduate specialties are Political Education, Political Education and History, Chinese Language and Literature, Library and Information Science, Mathematics, Physics, Geography, and Biology. The three-year specialties leading to a junior college graduation diploma are Political Education and History, Chinese Language, History, Mathematics, Physics, Geography, and Physical Education. The junior college specialties are Political Education, Political Education and History, English, Library and Information Science, Mathematics, Physics, Computer science and Technology, Geography, Physical Education, Adult Education Management, and Education Management. These degrees require three years.

The target students are mainly In-service secondary school teachers. The persons who apply for correspondence studies must have the educational level of secondary school graduates and the In-service persons must apply for specialties related to their occupations. They are admitted by strict entrance examination.

In order to strengthen the organization and management for correspondence education, the college, the local educational administration and the institute have formed a three-in-one management network. This is detailed in Papers of Agreement in Correspondence Education. They set up study centers in local educational institutes in Shanghai, Yantai, Qingdao, Weifang, Taian, Huimin, Chuxian County, Wuxi, Suzhou, Yangzhou, Jiaxing, Hangzhou, Ningbo, Jinhua, Lishui, Shangrao, Zhangzhou, Xiamen, Changsha, Luoyang, Wulumuqi, and Kunming.

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Along with the development of correspondence education, ancillary management by computer is expected. The college has now established a computer-centered information management system and endowed the management system of correspondence higher education with high efficiency and a powerful function.

The Manual for Correspondence Students in the East China Normal University has been completed. Every school year six to eight courses are required for liberal arts students and four to five courses for science students. Self-learning is an important part of the correspondence courses. The college guides the correspondence students' self-learning and cultivates their self-learning ability through various correspondence teaching materials, guide books, self-learning groups, concentrated face-to-face instruction, and study tours. Once or twice each semester students go to local study centers to take part in the face-to-face teaching activities which are conducted by teachers from the college. Generally these activities are arranged in summer and winter vacations and each lasts two weeks. Besides these sessions, study center assistance is always available.

The students in Shanghai receive face-to-face instruction once or twice a week and must do the study assignments which are regularly given in accordance with the teaching programs and the students' progress. They mail their assignments to their teachers or to tutors. Study assignments include quizzes and exercises which are corrected by teachers from the college and the local study centers. Quizzes are sent back and marked only by teachers from the college. Laboratory experiments and field-work, important components of correspondence courses, are a means to provide students with basic technical training and cultivate the ability to solve practical problems. For science students, laboratory experiments are conducted locally or undertaken during summer or winter vacations. The field work for science students, outlined in the syllabus, is conducted in the local areas. The liberal arts students also do required fieldwork and social investigation.

The college strictly controls the graduation examinations, graduation theses, and examination of comprehensive abilities so as to cultivate, train and testify to the student's ability to analyze and solve problems.

Most students fall into the twenty-five to forty year old age group, and 85% of students are male. About one-third of science students drop out. From 1956 to 1990, 88,405 students graduated. From 1978 to 1990, there were 779 junior college graduates and 5,196 graduates. In 1990 the college had 3,814 correspondence students on the roll, and 421 graduates. In March 1983, the Ministry of Education formally gave East China Normal University the right to confer bachelor degrees on correspondence graduates. Since then, 10 to 15% of correspondence graduates are awarded a bachelor's degree. The college has forty full-time teachers, sixty administrative staff, and some part-time teachers.

The college pays attention to compilation of correspondence teaching materials that suit adult self-learning. The college has stipulated this in Methods for the Compilation, Printing and Publication of Correspondence Teaching Materials. According to the rules and regulations, there are about 100 kinds of teaching materials and sets of self-learning guide books. The college pays attention to adult higher education research. The main orientation is research on the basic theories of adult higher education, continuing education, China's adult higher educational history, and staff-worker education.

The bimonthly Research in Adult Higher Education is edited and published by the editorial department which maintains nationwide communication with almost 100 correspondents since 1982. Research shows that most of the graduates have either risen to

leading positions or become the technical and professional mainstays of their units.

Every year the State Education Commission grants the equivalent of US \$134,000, and the Shanghai Higher Education Bureau grants the equivalent of \$40,000. Correspondence students needn't pay tuition fees. Their units pay a nominal administrative fee to the study centers and they must provide travelling funds for the students' participation in teaching activities.

The college places emphasis upon international academic exchange and cooperation in research. In October 1983, joint comparative research was conducted by the college and the extension department of Victoria University in Canada on the process of distance education. IDRC of Canada financed the college to train eight staff members and provided equipment valued at more than \$9,000. The college has also established academic exchanges with British Columbia University in Canada.

The Adult Higher Education College of East China Normal University is looking forward to growth in correspondence education, guided by the slogan Education Must Face the Modernization, the World and the Future to open a new era in the field.

China's Radio and Television Universities

China was one of the first countries to use radio and television for educational purpose. In 1955, radio correspondence schools were founded in Beijing and Tianjing. During the early 1960's, the first television universities were founded in Beijing, Tianjing, Shanghai, Shenyang, Harbing, Guangzhou, Wuxi and other cities, to meet the growing demand for adult education unmet by campus-based institutions. These television universities were run on a trial basis and offered eleven undergraduate and junior college specialties in Chinese Language and Literature, English, Russian, Physics, Mathematics, Chemistry, Political Education, Chemical Engineering, Electrical Machinery, and Mechanical Engineering, which were aimed at school teachers to provide them with the opportunity to raise their educational level and to upgrade their professional qualifications. Until 1965, these TV universities enrolled 129,805 students and 15,584 graduated.

These universities were closed because of the Cultural Revolution (1966-1976), after which China entered a new era of socialist modernization construction. During that time however only 5% of secondary school graduates could be admitted by the existing institutions. With less than one percent of the population registered in universities, China ranked in the bottom ninth in the world. On average, education funds per person was only \$5.00, which ranked in the bottom third in the world. Only 3% to 4% of staff and workers received higher education. China is a vast country. The remote and rural areas are underdeveloped in terms of culture, science and technology. Economic and social growth urgently required various forms of specialized personnel. Faced with this situation, the Chinese government decided to develop distance education, facilitated by a TV network which covered most areas of China by the end of 1970's. These conditions combined to encourage the establishment of radio and television universities. In February 1978, the State Council approved a report on the founding of Central Radio and TV University (CRTVU) with twenty-eight Provincial Autonomous Regional and Municipal Universities (PRTVUs). One year later, the TVUs began to enroll students nationwide.

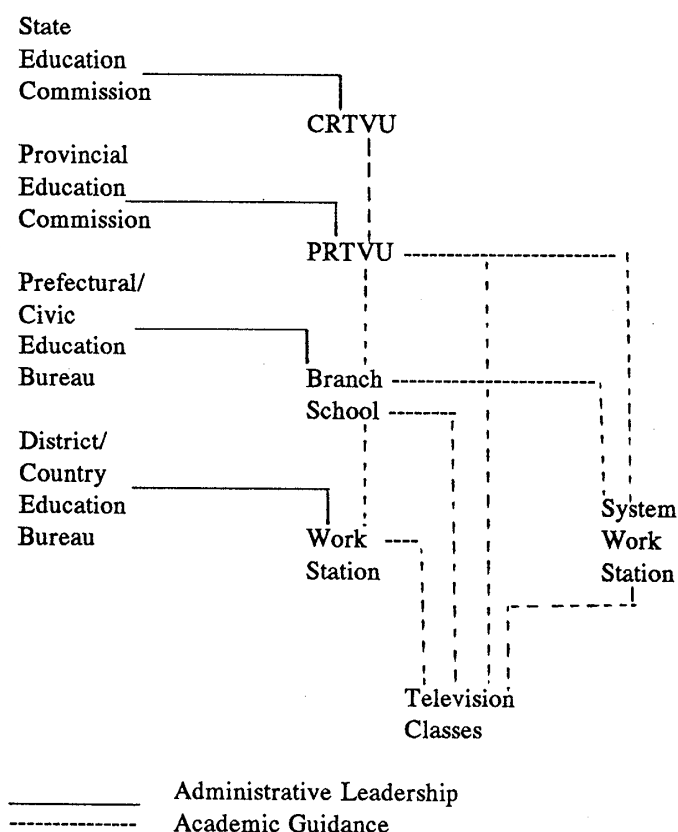
As of 1990, the national system of higher education through radio and TV included the CRTVU, forty-three PRTVUs, 595 branch schools and 1272 work stations. In April

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1990, China Liao Yuan Radio and TV School (simply called Liao Yuan School) was set up under the auspices of the State Education Commission. It is administered by the CRTVU to educate the rural population, improve management and farming techniques, as well as to raise the farmers' cultural level so as to increase agricultural production.

The national system of Radio and TV Universities (TVUs) is run at the central and local levels, corresponding to China's system of national and regional governments.

TABLE 1: Administrative and Academic Organization of the TVU System



CRTVU is responsible for producing the curriculum for TVUs and ensuring that this curriculum includes all the subjects which are recognized as of interest nationally. It then produces syllabuses, and radio and TV programs for these courses. It is also responsible for writing, editing, publishing and distributing materials for these courses; organizing end-of-semester national examinations and ensuring that marking is standardized, drawing up national examination timetables; training teachers, technicians and administrative staff; conducting research on higher education through distance learning; directing the teaching administration of PRTVU's, and coordinating academic work when it is shared by more than one PRTVU. CRTVU is thus the TVUs center of teaching administration, program production, course delivery and distance learning research.

The PRTVU's are responsible for: producing courses in subjects which are of specific interest to their region; producing syllabuses, TV and radio programs, writing course materials and supplementary materials for the courses they have produced; setting end-of-semester examinations for their own courses and marking them. They organize the examinations set by CRTVU and mark these papers, ensuring that teachers follow set

administrative and examination procedures. They oversee new student enrollment, keep student records, and issue degrees and certificates; train teachers and keep abreast of new teaching methodology. Further, they promote the interchange of ideas on the running of local TVUs; direct the teaching and administration work done in branch schools and work stations; and provide advice, guidance and help to students with academic/personal problems.

Branch schools are responsible for all aspects of scheduling, including timetables for watching TV programs, tutorials, examinations, tests, laboratory work and field studies as set out by CRTVU and the local PRTVU. They also ensure that teachers follow the set administrative and examination procedures. Their responsibility includes ensuring that course syllabuses are adhered to; setting up work stations and TV classes and directing their work; providing advice, guidance and help to students with academic/personal problems; issuing degrees and certificates; and administering established courses in the subjects which are of specific interest locally.

Study centers are responsible for: recruiting teachers and tutors; organizing TV classes and maintaining high teaching standards; timetabling tutorials, laboratory work and field studies; distributing teaching materials; and providing advice, guidance and help to students with academic/personal problems.

TABLE 2: The Organizational/Departmental Structure of CRTVU

STAFF COMMITTEE	<ul style="list-style-type: none"> - Administrative Section - Financial Affairs Section 			<ul style="list-style-type: none"> - Education Technology Development Center - Training Center - Library - Computer Center - Magazine Publishing House - Economics & Management Department - Chinese Languages and Literature Department - Foundation Courses Dept. - Chemical Engineering Department - Electronic Engineering Department - Mechanical Engineering Department - Production Center - Publishing House - Distance Education Research Center - Liao Yuan Radio & TV School
The EXECUTIVE COMMITTEE Composed of Presidents	<ul style="list-style-type: none"> - Teaching Affairs Section - Examination Section 	VICE PRESIDENTS		
The UNIVERSITY COUNCIL	<ul style="list-style-type: none"> - Policies and Ideology Office - Personnel Department - The President's Office 			

Generally, foundation courses and most of the key specialized courses are offered by CRTVU, while more specialized courses are offered by local TVUs. As of 1990, the CRTVU has offered 230 junior college courses in twenty-one specialties in Science and Engineering, Humanities, Economics and Management, and Agriculture. PRTVU and their branch schools offered their own courses to meet local needs. The total number of courses offered by TVU's amounted to over 500, covering more than 294 specialties.

Three year junior college courses are designed for full-time students, who must complete the course in three years. A total number of 114 credits are required, which may take four years or more for part-time students to complete. The two year junior college course is designed for full-time students, and may take three years for part-time students. A total number of seventy-six credits is required for them. Students are awarded one credit

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for every eighteen hours of study, field or laboratory work. Ten credits are given for a thesis. Study includes such activities as watching the TV programmes, attending tutorials, doing homework and assignments and studying alone. A TVU student must obtain no less than 60% of his/her total credits by courses offered by CRTVU.

Liao Yuan Radio and TV school offers courses on Planting, Aquatic Product Breeding, Animal Husbandry, Forest and Fruit Tree, Processing of Farm Product, Maintenance of Agricultural Machinery, Skills and Technology in Rural Enterprises, Management of Small Enterprises, Energy Sources in the Countryside, Agricultural Environmental Protection, Family Planning, Health and Hygiene, Background Knowledge on the History of China, and Political Development and Present Ideology.

The TVUs' target students are In-service adults, fresh secondary school graduates and young school leavers, waiting to be assigned jobs. They come from many different walks of life. They must be given permission by their units to study and pass the national entrance examination set by the State Education Commission for Adult Higher Education. Thus they are admitted to the TVUs. They study full-time, part-time or in their spare-time, but all of them receive full salary and all other benefits that fellow workers enjoy. Fresh secondary school graduates and young school leavers were first admitted to the TVUs in 1986. Those fresh secondary school graduates who pass the national entrance examination for conventional institutions are automatically admitted to TVUs. The school leavers must pass the adult examination before gaining admission to TVU's. All of them are expected to study full-time. Free viewers are those who do not take the entrance examination and study on a self-instructional basis. In the past, they could attain diplomas or single-course certificates if they took and passed the required examinations, but since 1986, TVU system has not accepted free viewers. Continuing education students have already received some form of higher education. Their study purpose is to upgrade their professional qualification or broaden their knowledge of a specific subject. Other types of students, such as Liao Yuan School's students, are not required to take the entrance examination. After they finish study, they can gain certifications. As of 1990, the TVU system had enrolled 1.83 million students and 1.25 million had graduated. In 1990, there were 420,000 students on the roll.

TABLE 3: Student Enrollment and Graduation at Junior College Level

Year	ENROLLMENT			GRADUATION		
	All Subject	Single Subject	Total	All Subject	Single Subject	Total
1979	97 464	224 725	322 471			
1980	79 377	80 124	159 501			
1981					92 714	92 714
1982	184 973	68 083	256 056		47 590	47 590
1983	235 567	18 728	254 295	92 022	94 566	186 588
1984	205 858	11 992	217 850	67 905	61 286	129 191
1985	273 112	11 446	284 558	17 032	105 185	122 217
1986	215 200	21 861	237 061	165 204	75 386	240 590
1987	130 029	65 500	195 529	248 778	142 015	390 793
1988	191 900		191 900	178 891	11 310	190 201
1989	124 542		124 500	275 000		275 000
1990	111 730	86 514	198 244	131 200		131 200
				120 067	39 383	159 450
Total	1850 034	588 973	2438 965	1296 099	669 435	1834 334

As of 1990, more than three million people have taken continuing education courses and post-training courses.

The TVU system has played an important role in adjusting the proportion of junior college graduates to university graduates. There used to be many more university graduates than junior college graduates. The ratio in 1980 was 3:1, and it was adjusted to 1:1 in 1990. The number of TVU students helped to increase the proportion of adult students over the age of twenty-five in China's higher education institutions. The number of TVU graduates majoring in the Humanities and Economics and Management has helped to improve the curricular arrangement in China's education. For example, the number of graduates majoring in Economics and Management amounted to more than 248,800 in 1986, which is 7.6 times the number of graduates from on-campus institutions in the same year, and is 1.23 times the number of those institution's graduates between 1949-1986.

TVU has provided fresh secondary school graduates with greater chances to receive higher education, and has offered a second chance for young school leavers to enter higher institutions. Twenty-eight per cent of TVU students are females, while 2.5% of TVU students are minorities. The percentage of TVU students who are workers, teachers, cadres, and workers doing cadres' jobs is respectively 59.4%, 5.1%, 12.5%, 12%.

China's TVUs have formed a multi-media teaching model by combining printed teaching materials, audio-visual programmes and face to face tutoring. The teachers of the TV and Radio course programmes are chosen from key universities throughout China and most of them are famous professors and experts. In the programmes they focus on difficult and key points. Radio and TV programmes are broadcast nationally by central and local radio and TV stations and also are transmitted by satellite.

TABLE 4: Organization of Programmes and Their Transmission

Broadcasting Organization CCTV(courses offered by CRTVU)	Media Used Microwave	Area Broadcast to Nationwide	Time Available* 22 teaching hours per week
CETV(courses by CRTVU)	Satellite	Nationwide	84 teaching hours per week
Provincial and civic radio/TV stations (courses offered by CRTVU and PRTVUs)	Radio and TV	Regionally	Varies locally
Branch schools work stations and TV classes	Audio-visual equipment; audio-and video-cassettes		

* One teaching hour lasts 50 minutes for a radio/television programme. Before September 1989, CCTV transmitted courses offered by CRTVU amounted to thirty-three teaching hours per week.

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Because of the limitation of broadcast hours, TVU produces and distributes audio and video cassettes to study centers for some courses. Printed teaching material compiled by the staff of CRTVU and professors from non-distance institutions are used to accompany radio/TV programmes. This material includes course books, reference, and study guide books. CRTVU has specified these materials in Standards of Compiling Printed Teaching Materials and Standards of Making Audio Visual Teaching Programmes. CRTVU and TVUs have also set up a printing, publishing, and distributing system for teaching materials. All TVU students are organized into TV classes in centers, where the quality of transmission is of a higher standard than that at home. The student can get tuition in TV classes as well. Tutorials are used for the purpose of distributing and correcting homework and making assignments for which credits are given.

Science students must carry out a number of practical experiments, assessed by their tutors, to gain the necessary credits to graduate. Engineering majors must gain practical experience at a work site and complete a project before they can graduate. They are expected to do this during their holidays. Social science students must conduct a field study and write up their findings.

Students' progress is assessed mainly through examinations, which are set and produced by PRTVUs for their regional specific courses and are held in mid-semester. Examinations for CRTVU core courses are held at the end of each semester. While they are organized centrally, examinations are administered locally, and are held on the same date throughout the country. In-service adult students who are studying full-time must go back to their original work units if they fail two end-of-semester examinations in any given semester, or three examinations in different semesters. They may go on to become part-time students if they receive approval from their work unit. These regulations about failing examinations apply to all students.

TVU's conduct research on educational theory and technology. For example, the project of Research on Distance Education by Large Scale Use of Electronic Communication Technology has achieved some results and is one of the key national research projects in the country's seventh Five Year Plan. In addition, the Nationwide Sampling Tracer Study on TVU Graduates, supported by World Bank Loan, has been completed. At present, three research projects are being conducted on: the relationship between carrying out social development aims and TVUs; openness and controlling the quality of TVUs; and multi-media teaching and teaching materials construction. The publishing house of CRTVU compiles and publishes the monthly magazine China TV University Education.

TVUs have their own staff members experienced in distance education, working as teachers, administrators and technicians. TVUs also employ part-time tutors, the majority of whom are attached to Branch Schools and Study Centers. They are recruited from campus-based institutions, research institutes, and other enterprises.

The academic standards of TVUs have been positively acknowledged by the government and by academics of other institutions. The levels of graduates are satisfactory. A sample tracer study, conducted over a three-year period on 320,000 graduates, revealed that employers find most of their TVU graduates to be qualified. It has been proven that 90% of them are qualified junior college graduates, 80% in management competence and 70% in foreign language competence. Compared with other graduates, TVU graduates are more experienced in work. They play an important role in all walks of life, and some of them have gained outstanding achievements. The TVU system is thus efficient and cost

effective.

Every year the State Education Commission grants the equivalent of about US \$800,000 to CRTVU. In addition, government's health and education funds are used to compile teaching materials. Liao Yuan Radio and TV School gets about \$300,000 from the State Education Commission. PRTVUs receive different amounts by the local education administrative department of government, according to need.

CRTVU is an associated center of APEID which is sponsored by the regional office of UNESCO. As an associated center, CRTVU has held a number of seminars on distance education and has provided UNESCO with data and information.

It has also over the years built up and maintained good relationships with other Open Universities both in developed and developing countries (e.g. Open University, U.K. Sukhothai Thammathirat University, and Ramkhamhaeng University, Thailand; Indira Gandhi National Open University, India; Athabasca University, Canada). These contacts have provided a valuable forum for discussions and the exchange of ideas and have been of mutual benefit.

A number of organizations have provided China TVU with substantial financial and educational assistance. The World Bank has funded the establishment of eighty-five Study Centers throughout the country, as well as learning laboratories, audio-visual laboratories, and libraries in CRTVU and PRTVUs. The World Bank has also provided funding for a large scale internal training program and the money for technicians and academic staff to be trained abroad. CRTVU has received educational assistance with their Foreign Language Courses. The British Council has had links with CRTVU since 1981. EFL advisers sent by the British Council have, over the years, helped CRTVU with course book writing and the production of TV programmes. The Japanese government has funded the production of the Japanese Language Course, as a result of cooperation between CRTVU and Japan NHK International Inc. To date, the Nationwide Sampling Tracer Study on TVU graduates, supported by a World Bank Loan, is finished. The joint project of Compilation and Production of an Audio-visual Teaching Package, co-produced by CRTVU and Japan's NHK, has also been completed.

The strategy of developing China's TVUs is progressive educational reform, to perfect its system, to improve its teaching quality, to make it more cost effective, to develop junior college courses in a stable way and at the same time to develop continuing education at the postgraduate level as well as vocational education at the primary and secondary levels. The TVU system continues to improve the mechanism of running the system according to the needs of social economic development: it adjusts educational aims and direction in accordance with suggestions made by personnel, it increases the flexibility and adaptability of education by reforming teaching plans and curriculum, and it further improves feedback through use of educational evaluations.